

**REMARKS**

Applicant thanks the Examiner for acknowledging the claim for priority under 35 U.S.C. §119 as filed in parent Application No. 09/721,662 which was filed on November 27, 2000, and for acknowledging receipt of a certified copy thereof. Applicant thanks the Examiner for considering the references cited with the Information Disclosure Statement filed January 20, 2004. Applicant also thanks the Examiner for indicating that the Formal Drawings filed January 20, 2004 are accepted.

**Allowable Subject Matter**

Applicant thanks the Examiner for indicating that claims 6-8 would be allowed if rewritten in independent form. However, instead of rewriting claims 6-8 in independent form, Applicant respectfully traverses the prior art rejections for the reasons set forth below.

**Claim Rejections - 35 U.S.C. § 112**

The Examiner has rejected claims 5-9 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Claims 5, 6 and 8 have been amended to address the issues indicated by the Examiner. Claim 9 has not been amended as the lack of antecedent basis noted by the Examiner has been corrected by the amendment to claim 5.

**Claim Rejections - 35 U.S.C. § 102**

The Examiner has rejected claims 5-9 under 35 U.S.C. § 102(b) as allegedly being unpatentable over Yamaguchi et al. (US 5,953,359; hereinafter "Yamaguchi"). This rejection is respectfully traversed.

Applicant respectfully submits that Yamaguchi fails to disclose, at least, setting each diffraction grating height to provide a substantially similar coupling coefficient for each laser, as recited in independent claim 1.

Yamaguchi discloses a technique for creating a uniform LD characteristic fluctuation. To accomplish this goal, Yamaguchi configures the laser diode array such that the first to  $n^{\text{th}}$  semiconductor lasers have gain peak wavelengths of  $\lambda_1$  to  $\lambda_n$ , incremented by a constant value  $\Delta\lambda$ . (col. 9, lines 23-29). Further, Yamaguchi sets the pitch increment  $\Delta\Lambda$  at a constant value between successive lasers. (col. 9, lines 9-11). By following this arrangement, Yamaguchi maintains the the LD characteristic fluctuation within a specified threshold. The reference is otherwise silent on setting each diffraction grating height to provide a substantially similar coupling coefficient for each laser. Furthermore, all diffraction grating heights disclosed in Yamaguchi are of the same height. (See Figs. 2 & 5).

Additionally, within the body of this rejection, the Examiner states:

... setting heights (all of the gratings here are set to have an identical height) to provide an identical coupling coefficient for each of the plurality of lasers 9 (see figure 14; column 11, lines 42-50; column 12, lines 1-16; note that the selection of pitches, the heights (uniform for each laser in this case), and the active layer materials directly provide uniform laser output characteristics and gain, and hence, a uniform coupling coefficient).

(Office Action, page 4).

Thus, from this excerpt, the Examiner obviously concedes that the heights of the diffraction gratings are all equal in Yamaguchi. In contrast, claim 1 recites “setting each diffracting grating height to provide a substantially similar coupling coefficient for each laser,”

Yamaguchi only discloses diffraction gratings of equal height, as the Examiner has indicated. (see excerpt above). Further, Yamaguchi fails to indicate or even consider any use of diffraction grating height to control the coupling coefficient.

Thus, Applicant respectfully submits that independent claim 1 is allowable over Yamaguchi, and requests that the Examiner withdraw this rejection. Further, Applicant respectfully submits that rejected dependent claims 6-9 are allowable by virtue of their dependency on claim 1, and for the features recited therein.

### **Conclusion**

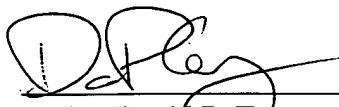
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Amendment Under 37 C.F.R. § 1.111  
U.S. Appln No. 10/759,275

Atty Dkt No. Q79227

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'David P. Emery', written over a horizontal line.

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**23373**

CUSTOMER NUMBER

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